

BEST AVAILABLE COPY

ABSTRACT

[00182] A system and method for wood preservation comprises treating wood products via conventional pressure treating mechanics of sequential vacuum and pressure with a solution comprising an oligomeric, stoichiometrically balanced blend of primary and secondary diamines with modified diphenylmethane diisocyanates and a carrier solvent/reactant. Upon application, the carrier solvent/reactant evaporates, allowing polymerization of the remaining solution constituents to form a non-toxic, hydrophobic, elastomeric polyurethane linked copolymer that provides a long-term barrier against rot, environmental, termite and mold/fungus attack. Complete polymer impregnation of the wood's interstitial fiber space enables the hydrophobic property of the polymer to provide a long-time barrier to water penetration. Alternatively, the polymer may be surface applied to provide both protection and to prevent leaching out of CCA chemicals in the case of conventionally treated wood. The polymer is also an effective termiticide.